

TENT

BACKGROUND OF THE INVENTION

5 I. Field of the Invention

This invention relates generally to a tent and, more specifically, to a tent in umbrella structure with a switch that is easy to open and convenient to store.

II. Description of the Prior Art

10 Heretofore, it is known that tents are for people to rest or sleep in the evening while camping outdoors, or a temporary shelter to avoid insects and snakes.

The structure of known tents a, referring to FIG 1, is to have several supporting poles b form a space, then apply a cover c externally, four sides of the cover c is stabled on ground with nails or ropes to resist wind and rain.

15 However in some special occasions, fishing or mountain climbing for example, the camping location might change as needed, the structure of the known tents is too large and not easy to install and store; some tents have springs as supporting poles for easy recovery, however such supporting poles are with elasticity and not able to resist heavy wind for protection.

SUMMARY OF THE INVENTION

It is therefore a primary object of the invention to provide a tent that is easy to install and convenient to recovery, store.

5 In order to achieve the objective set forth, a tent in accordance with the present invention comprises a shaft, a protective cover, a handle and a plurality number of supporting ribs. The shaft consists of a upper shaft and a lower shaft, an indentation is on the upper shaft, a stopper protruding out on the upper shaft is on the indentation; a fixing ring, a runner and a running ring are on the upper shaft; the fixing ring is on top of the
10 upper shaft, the runner is beneath the fixing ring, the running ring is below the runner. The protective cover with a center hole wraps the upper shaft from top and is fixed onto the fixing ring by a cap; the protective cover has the same amount of tip cover corresponding to each tip of the supporting rib; two ropes connecting to the runner and running ring respectively stretch out from the cap on top of the upper shaft and connect to
15 an opening ring and a closing ring respectively; a zipper door is on one side of the protective cover, a ground mats covering ground stretches from the bottom of the zipper door, the ground mats has a tri-directional zipper.

Based on the structure described above, the physical size and height of the present invention depend on the moving length of the runner on the shaft for the maximum inner
20 space and easy for storage; therefore the design of the shaft is subdivided into upper and

lower portion; a connector is on the proper location of the rib. When users pull the runner up along the shaft and pull the ribs and stretchers open simultaneously, the protective cover is propped up; the runner is fixed by the stopper to maintain the present invention in open state; when users intend to recover the present invention, they can pull the closing
5 ring connecting to the running ring and have the running ring move up along the upper shaft, the running ring pushes the stopper down into the indentation, the runner moves down by the push from the supporting ribs to have the supporting ribs close inward.

Based on the structure described above, users can pull the opening ring to prop up the supporting ribs, then remove the lower shaft and close the tri-directional zipper; while
10 recovery, users unzip the tri-directional zipper, connect the upper and lower shaft together, then pull the closing ring to close the supporting ribs.

BRIEF DESCRIPTION OF THE DRAWINGS

15 The accomplishment of the above-mentioned object of the present invention will become apparent from the following description and its accompanying drawings which disclose illustrative an embodiment of the present invention, and are as follows:

FIG 1 is a perspective view of the prior art;

20 FIG 2 is a cross-sectional view of the present invention;

FIG 3 is a cross-sectional view of a further embodiment of the present invention;

FIG 4A is an application view of the present invention;

FIG 4B is another application view of the present invention;

FIG 4C is a perspective view of a further embodiment of the present invention;

5 FIG 5 is a perspective view of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG 2 and FIG 3, the present invention is composed of a shaft 10, a
10 protective cover 20, a handle 30 and a plurality number of supporting ribs 40. The
functions of each component are described below:

The shaft 10 consists of a upper shaft 11 and a lower shaft 12, the total length of the
shaft 10 after assembly is slightly longer than the supporting ribs 40; an indentation 11a is
on the upper shaft 11, a stopper 11a1 protruding out on the upper shaft 11 is on the
15 indentation 11a; a fixing ring 11b, a runner 11c and a running ring 11d are on the upper
shaft 11; the fixing ring 11b is on top of the upper shaft 11, the runner 11c is beneath the
fixing ring 11b, the running ring 11d is below the runner 11c; two ropes 11e connecting to
the runner 11c and running ring 11d respectively stretch out from the cap 11f on top of the
upper shaft 11 and connect to an opening ring 11c1 and a closing ring 11d1 respectively.

20 The protective cover 20 is in polygon shape with equal sides and topped with a

center hole 21, the protective cover 20 wraps the upper shaft 11 from top and is fixed onto the fixing ring 11b by the cap 11f; the protective cover 20 has the same amount of tip cover 22 corresponding to each tip of the supporting rib 40, also has a viscous fastening part 23 corresponding to each of the rib 41; a zipper door 24 is on one side of the protective cover 20, a ground mats 25 covering ground with the size of the opened supporting ribs 40 stretches from the bottom of the zipper door 24, the ground mats 25 has a tri-directional zipper 26.

The handle 30 wraps around the cap 11f and is fastened on the top of the upper shaft 11.

The supporting ribs 40 consists of a plurality number of ribs 41 and stretchers 42, a connector 41a is on the proper location of the rib 41 to make the rib 41 fold outward; the two ends of the rib 41 are connected to the fixing ring 11b and the tip cover 22 of the protective cover 20 respectively; the two ends of the stretcher 42 are connected to the corresponding rib 41 and the brim of the runner 11c respectively.

Referring to FIG 4A, FIG 4B and FIG 4C and based on the structure described above, when users intend to open the present invention, they pull the opening ring 11c1 connecting to the runner 11c to have the runner 11c move up along the upper and lower shaft 11, 12 first, the stretchers 42 are pulled upward along with the runner 11c, the ribs 41 are also stretched open to prop the protective cover 20 open; the runner 11c is fixed by the stopper 11a1 to maintain the present invention in open state; users can split the upper

and lower shaft 11, 12 and pull the tri-directional zipper 26 to have the protective cover 20 in enclosed condition; users can come in and out through the zipper doors 24. When users intend to recover the present invention, they can unzip the tri-directional zipper 26 to let the protective cover 20 in loose state, connect the upper and lower shaft 11, 12 together to form a rail for the running ring 11d, users then pull the closing ring 11d1 connecting to the running ring 11d and have the running ring 11d move up along the upper shaft 11; the running ring 11d pushes the stopper 11a1 down into the indentation 11a, the runner 11c moves down by the push from the supporting ribs 40 to have the supporting ribs 40 close inward; users can fold the supporting ribs 40 externally from the connector 41a; the viscous fastening part 23 can stick the protective cover 20 and supporting ribs 40 together, moreover for better fastening and easy replacement of the protective cover 20; the ground mats 25 with the tri-direction zipper 26 can wrap the present invention to seal completely for storage.

FIG 5 shows an application of the present invention, while fishing, users can install the present invention ashore or on dock and apply the protective cover 20 for the wind and rain resistant function; the present invention is very convenient for users in constantly moving. It can also be applied to a playroom for children or a resting place on the beach.

While a preferred embodiment of the invention has been shown and described in detail, it will be readily understood and appreciated that numerous omissions, changes and additions may be made without departing from the spirit and scope of the invention.